THE JOURNAL OF SCHOOL HEALTH

Vol. XXV No. 2

FEBRUARY
1955

Gertrude E. Crowell, R. N.
414 14th St.
Denver 2, Colo.

PUBLISHED BY
THE AMERICAN SCHOOL HEALTH ASSOCIATION

AMERICAN SCHOOL HEALTH ASSOCIATION

Organized 1927

Devoted to the interests and advancement of those engaged in school health activities and the service rendered by them

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THE JOURNAL OF SCHOOL HEALTH

THE AMERICAN SCHOOL HEALTH ASSOCIATION

Chicago, Ill.

Published monthly, except July and August, at Buffalo, N. Y.

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Membership dues, $3.00 including Journal: Subscription $3.00

Single copies 35c, send payment with order

Address communications concerning publications

To THE EDITOR, The Journal of School Health
Room 617, 228 No. LaSalle St., Chicago, Ill.

Copyright, February, 1955 by
The American School Health Association

Entered as second-class matter at the Post Office at Buffalo, N. Y.
October 5, 1937

The Journal of School Health
is printed by
RAUCH & STOECKL PRINTING CO., INC.
120-130 ELMWOOD AVE., BUFFALO, N. Y. (near Allen)

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THE JOURNAL OF SCHOOL HEALTH

Devoted to the interests and advancement of school health service and instruction. Your participation by membership is solicited.

Vol. XXV FEBRUARY, 1955 No. 2

AMERICAN SCHOOL HEALTH ASSOCIATION SURVEYS SCHOOL LUNCH OPERATIONS (in the United States)

School lunch programs have rather suddenly assumed great importance. Participation in the national school lunch program is well over a third in many states with fifty per cent participation representing a reasonable goal for 1955-56. Recognizing the social importance of the activity and its professional responsibility, the American School Health Association appointed a committee[1] to direct a national survey of school lunch operations. The expenses of the survey were borne by the Public Health Committee of the Paper Cup and Container Institute.

The information needed was secured through the cooperation of a sampling of every fourth member of the American School Health Association. Special precautions were taken to guarantee an adequate sampling of non-public schools and to procure an adequate sample from each of the cultural regions of the United States. Each cooperating member was asked to:

> "Secure the cooperation of three schools—one elementary public, one secondary public, and one parochial (if you have no direct contact with a parochial school, select a second public elementary school). In selecting schools it would be advisable to go through the Chief Administrative Officer of the local school system. If possible, avoid selecting 'a best' or 'a worst' school lunch program."

The cooperation of American School Health Association members reflects great credit upon the Association and its individual members. The members of the survey committee also deserve great credit for their contributions.

The Committee expressed the purpose of the survey originally in these words:

---

1 G. Robert Koopman, Associate Superintendent, Department of Public Instruction, Lansing, Michigan, Chairman.
Claire M. Chrisman, M.D., Director, School Health Department, Public Schools, Arlington, Virginia.
Mildred S. Coyle, School Nursing Advisor, Department of Public Instruction, Harrisburg, Pennsylvania.
Mrs. Edith Cushman, State School Supervisor, State Department of Education, Hartford, Connecticut.
E. Curtiss Gaylord, Department of Health and Physical Education, State University Teachers College, Brockport, New York.
Gertrude Helms, R.N., High School, Clifton, New Jersey.
Ethel Peck, R.N., Stratford High School, Stratford, Connecticut.
Mary A. Thompson, Supervisor, Health Education, Board of Education, Upper Marlboro, Maryland.

"The project is a survey with emphasis on sanitary aspects of school lunch programs, but including certain related aspects as represented in the survey instrument. The survey is to be so handled as to encourage improvement and to lay a basis for future (a) correlation studies growing out of the instrument, (b) correlative studies of special areas disclosed by survey results, (c) comparative studies growing out of work of other research groups."

The data were secured during the spring months of 1954. Seven hundred forty-two members received three sets of questionnaires and surveys of 646 schools were reported on Part I and 611 on Part 2 of the survey instrument. The most frequent reasons for not returning the questionnaire were due to the non-existence of school lunch programs, relationship of the member to schools, and failure of the school concerned to complete the survey.

The survey also had another aspect of great importance to those concerned. This was an on-the-spot study of certain school lunch programs made by students from five schools of public health as well as sanitarians of the Texas State and New Haven City Health Departments. The results obtained were comparable in that the same instrument was used in the interview as in the broader mail survey. The data resulting from this aspect of the survey are not included in this article but are not at variance in any significant manner from the data secured in the questionnaire study herein reported. One hundred forty-nine schools were involved in the interview study. Aside from the training values of this aspect of the survey, the activity points the way in which graduate and research institutions might make more intensive studies of aspects of school lunch operations.[2]

The nature of the survey was such that a large amount of data concerning the operation of school lunch programs has been amassed. Most of the data deal with very practical issues such as the types of lunches served, dishwashing equipment available, and how health studies are related to the school lunch program. The findings are interesting but not uniformly conclusive because it was impossible to make a thorough study of any one issue. The general consumer of this survey is urged to utilize the data in this survey and to draw his own conclusions from the trends indicated. The researcher is urged to use the findings as a starting point for further research.

As previously stated, the survey was designed to lay a basis for future (a) correlation studies growing out of the instrument,

2 A 31- page mimeographed report entitled **Raw Data and Tabulations** can be secured from the Public Health Committee of the Paper Cup and Container Institute, Two-Fifty Park Avenue, New York 17, New York. This report gives complete results on both the questionnaire study conducted by mail and the interview study.

(b) correlation studies of special areas disclosed by survey results, (c) comparative studies growing out of work of other research groups. There appears to be in the findings sufficient justification for the future detailed studies foreseen by the Committee. If this report should stimulate advanced studies in any of the areas mentioned, the Committee's mission will have been successful.

The Committee wishes to stress one result above all, namely, that the school lunch operation is a huge, cooperative undertaking with serious and important health and educational implications for the lay persons and the professions concerned. As a corollary the Committee urges that program improvement and research activities be carried on particularly in regard to (a) *personnel problems,* (b) *sanitation problems,* and (c) *school curriculum problems.*

The Committee is now engaged in the task of getting articles published in a number of journals. The first of these articles appeared in *The School Executive* for January, 1955 under the title "National Survey Reveals Lunch Needs." This is the second. Others, we trust, will appear in the near future.

DIGEST OF RESULTS OF SCHOOL LUNCH SURVEY

Regional Location of Schools	
Total New England	55
Total Middle Atlantic	203
Total East North Central	113
Total West North Central	43
Total South Atlantic	64
Total East South Central	16
Total West South Central	30
Total Mountain	35
Total Pacific	84

Population of Community	
Over 50,000	181
2,500 - 50,000	333
Less than 2,500	112
Not stated	20

Federal Subsidy for School Lunch	
Yes	539
No	95
Not stated	12

Type of School	
Elementary	424
Junior High	213
Senior High	246
Not stated	6
Public School	558
Parochial School	83
Not stated	5

Average Daily Attendance	
Less than 100	20
100 - 499	233
500 - 1,000	233
Over 1,000	145
Not stated	15

Type of Food Service	
Cafeteria	564
Classroom—food from cart	14
Classroom—no food cart	17
Dining room with service	66
Miscellaneous other	18
Not stated	18

Average number lunches served daily	
Less than 20	1
20 - 99	76
100 - 299	286
300 and over	259
Not stated	24

Most Complete Type of Food Service Offered

Type (1) Milk only (Federal Type C)	16	Type (4) Complete lunch with milk (Federal Type A or equivalent)	585
Type (2) Small scale preparations such as canned soups, etc., only to supplement lunches brought from home	8	Type (5) Incomplete lunch (Federal Type B or equivalent)	14
Type (3) Home prepared foods brought in bulk by students or parents and served in school	5	Not stated	18

Vending machines or stands where snacks, ice cream, fruit, beverages, etc., can be obtained in addition to regular school lunches were reported in 204 schools. Students operate 68 of these, schools operate 126, and concessionaires operate 18.

Positions of persons responsible for sanitary supervision of vending machines:

Food personnel	66	Teaching Staff	26	Custodian, Janitor	7
School administrative	56	Public Health Dept. Staff	14	Miscellaneous other	8

Alloted time for lunch				Number of lunch periods	
20 to 29 minutes	134	1 hour	51	1	208
30 to 39 minutes	265	Over 1 hour	13	2	201
40 to 49 minutes	141	Indefinite	10	3	147
50 to 59 minutes	22	Not stated	10	More than 3	77
				Not stated	13

Title of the person under school administrator directly responsible for:

	Sanitation	Purchasing Food	Purchasing Equipt.
Food personnel	440	463	336
School Administrative	86	88	221
Teaching Staff	30	29	25
School Board	—	6	39
Public Health Department Staff	35	1	1
Custodian, Janitor	13	—	1
Parents' Organizations	7	7	14
Miscellaneous other	6	3	3
Not stated	78	79	90

Kind of School Lunch Supervisor	
Full time—professionally trained	263
Full time—not professionally trained	151
Part time—professionally trained	57
Part time—not professionally trained	47
None	89
Not stated	47

Continuous active participation by parent-teacher or similar groups	
Actual lunch service	49
Financial aid to lunch programs	74
In securing improvements	131
Aid in inspection of premises for cleanliness and recommending improvement	60
No participation	456

Reported cleanliness of eating areas:

Serious problem	10	Slight Problem	78	Moderate problem	117
		No problem	411	Not stated	30

Easily accessible running water

Adequate supply	622	Inadequate supply	7	None	1	Not stated	16

If accessible:

Running HOT (heated) water available		Supply from public source		Regular inspection and sampling by health authorities of water supplies not from public source	
Yes	590		509		65
No	29		68		1
Not stated	10		52		2

Insect control problem:		Rodent control problem:	
Serious	2		1
Moderate	52		35
Slight	229		167
None	351		429
Not stated	12		14

Sufficient supply of eating utensils for service without washing during lunch period was reported by 429 schools. 188 stated they did not have, and 29 did not answer.

Dishwashing methods used:

Sink—1 compartment	36	Machine—pre-rinse	253	Dishpans	3
Sink—2 compartments	165	Machine—1 compartment	181	Miscellaneous other	9
Sink—3 compartments	117	Machine—2 compartments	100	Not stated	38

Sanitizing Procedure	
Hot Water (170°F.)	533
Chemical	158
Live Steam	52
Miscellaneous other	2
Not stated	41

Types of Multi-use table utensils used	
China	358
Metal	196
Glass	147
Plastic	301
Miscellaneous other	2
Not stated	34

416 reported a booster heater to assure 170°F.

Measures for sanitary storage and usage of multi-use table utensils:

Stored 10 inches or more above floor	559	Dispensing spoons, dippers kept in running water during serving periods	80
Kept in closed cupboards	17	Miscellaneous other	20
No towels used in drying	3	Not stated	78

Single service items (paper cups, etc.) were reported used by 299 schools, as follows:

Paper cups	201	Souffle cups, muffin cups	63	Containers, bowls	36
Paper plates	51	Cartons, boxes	17	Straws	45
Trays	8	Eating utensils, spoons, etc.	10	Not stated	26
Napkins	10	Miscellaneous other	4		

Single Service used for:

Juices	162	Water "Beverage"	19	Soft drinks	3
Desserts	100	Salads and side dishes	67	Miscellaneous other	2
Milk, Milkshakes	84	Coffee, hot chocolate	5	Not stated	35
Sandwiches, snacks	18	Main dishes	20		

Degree of noise in dining room during lunch period:

Slight	207	Moderate	361	Extreme	30	Not stated	48

Information about School Lunch Program is given to first grade pupils and transfer pupils from other schools by 496 schools. Methods used were:

Explanation of lunch procedures by teacher or elder pupil	456
Discussion of the nutritional purpose of the program	308
Discussion of the importance of sanitation	325

Pupil handwashing with soap and water before lunch is required by 350 of the schools, not required by 225. There were 71 which did not reply.

Health is a separate subject in the curriculum of 386 schools, is not in 209 and 51 did not reply.

Health taught as separate subject in:				Health taught not as separate subject in:			
Kindergarten	32	7th Grade	178	Kindergarten	69	7th Grade	176
1st Grade	134	8th Grade	164	1st Grade	233	8th Grade	163
2nd Grade	152	9th Grade	102	2nd Grade	230	9th Grade	130
3rd Grade	190	10th Grade	103	3rd Grade	210	10th Grade	104
4th Grade	207	11th Grade	88	4th Grade	195	11th Grade	94
5th Grade	216	12th Grade	83	5th Grade	187	12th Grade	89
6th Grade	220	Not stated	65	5th Grade	187	Not stated	59
						No health teaching	7

Study of sanitation in public eating places included in the curriculum:

Intensive	58	Casual	437	Not at all	71	NNot stated	80

Grade levels at which sanitation in public eating places is included:

Kindergarten	21	4th Grade	157	8th Grade	195	12th Grade	113
1st Grade	94	5th Grade	191	9th Grade	162	Not stated	265
2nd Grade	97	6th Grade	212	10th Grade	133		
3rd Grade	118	7th Grade	208	11th Grade	112		

In connection with the study of sanitation or health, pupils are assigned to observe and report on:

Sanitary practices in the school lunchroom				Their sanitary practices in the lunchroom			
Yes	257	No. 299	Not stated 90	Yes	331	No 221	Not stated 94

Action taken when students report deviations from proper methods:

If possible, correction is made	96	Reported and discussed by student council	31
Reported for correction to administrative personnel	88	Miscellaneous other	4
Discussed by students in class	51	Not stated	109

Local health department staff explained to classes in 233 schools the relationship between community health and the department's sanitation program. This was reported not done in 296 schools, and 117 did not reply.

Children assist in:

	Food Preparation	Food Service	Cleaning Up
Yes	43	302	424
No	502	282	182
not stated	101	62	40

Where they assist in any of these, 448 schools reported students are instructed in sanitary procedures—12 reported no such instructions and 17 gave no reply.

Title of person giving training:

Food personnel	321	School administrative	36	Miscellaneous other	4
Teaching staff	117	Public Health Dept. staff	38	Not stated	18
		Parents' organizations	1		

Supplementary teaching aids sponsored by government, voluntary agencies, are used in the study of sanitation by 433 schools. They were reported not used by 111 schools and 102 schools gave no reply.

Lunch operation inspected by:

	School Physician or Nurse	Health Department	Title of Health Department Official	
Yes	316	504	Health Officer	249
No	249	88	Sanitarian	234
Not stated	46	19	Public Health Nurse	84
			Nutritionist, Dietician	7
			Not stated	22

Date of last inspection by health department:

1954	223	1/1—6/30/53	47	1951	4	Not specified when	1
7/1 — 12/31/53	145	1952	17	Before 1951	—	Not stated	67

	Inspection Reports submitted to	Correction made by	Reports discussed by
School Administrative	200	153	192
Teaching Staff	3	10	38
Food Personnel	49	111	174
Public Health Department Staff	35	10	119
School Board, Board of Education	11	7	27
Parents Organizations	7	2	7
Custodian, Janitor	—	2	10
Miscellaneous	4	6	15
Not stated	34	44	7

Departments reviewing plans for changes, new construction, new equipment, etc.

	Required	Voluntary	Not Reviewed	Not Stated
Health Department	124	114	98	275
School Physician	44	73	105	389
State Lunch Agency	147	119	89	256
School Board, Board of Education, Etc.	34	12	15	550
Principal, Cafeteria Supervisor, Etc. and all personnel	42	21	2	546
Miscellaneous	16	8	—	587

132 respondents did not give any answers.

The School Lunchroom was reported used for other purposes by the school or community in 482 replies.

The school kitchen was reported so used in 400 replies.

Purposes for which used:

Community activities	303	PTA activities—Mothers-Dads Clubs	231	Miscellaneous	4
School activities	47	School Social Functions	90	Not stated	15

Medical or health examinations given food service personnel including part-time students help

Required	466	Voluntary	59	Not given	59	Not stated	27

By whom given		Frequency of examinations	
School Doctor — School Nurse	168	Less than once a year	61
Health Dept., City, County, etc.	130	Once a year	369
Private — Family Doctor	115	Twice a year	34
Doctor — Medical Staff	67	Three times a year	2
Miscellaneous	10	Five times a year	1
Not stated	76	Not stated	58

Chest x-ray was reported by 444 schools, not by 53, and 28 did not answer.

Other tests:

Blood test—Wasserman	106	General Physical Exam,		Miscellaneous	33
Urine	21	Skin, etc.	80	Not stated	324
		Stool, Typhoid, Dysentery	30		

In case of positive findings employees are referred to		Medical advice given food workers by the school physician or nurse for	
Non-medical school personnel	168	Emergencies	419
Health Department—City, County	96	Communicable Disease Diagnosis	256
Private — Family Doctor	80	Cuts, bruises	401
School Doctor — School Nurse	81	Miscellaneous	11
Doctor	14	Not stated	156
Miscellaneous	6		
Not stated	120		

Sanitation training programs for food service personnel:

Routine	232	When needed	203	None	107	Not stated	69

Title of person who gives them

Food personnel	142	School Administrative	8	Miscellaneous	31
Health Officers	27	All other Health Dept.	57	Not stated	113
Sanitarians	48	University Faculty	17		
Teaching Staff	13	School Board	2		

Attendance required: Yes 265 No 81 Not stated 89

Equipment cleaning was stated to be a problem in 73 replies. 520 said it was not, and 18 did not answer.

Method of cleaning multi-use cooking utensils cleaned after each use:

Hot water	516	Bactericidal treatment	155	Not stated	22
Detergent	491	Miscellaneous	3		

Type of refrigeration		Thermometer in each refrigerator		Ice used for food displays in drinks, etc.	
Automatic	601	Yes	377	Yes	112
Ice	1	No	196	No	437
Not stated	9	Not staated	38	Not stated	62

Food displays covered or shielded by glass or plastic were reported in 281 schools. None were reported in 186, and 144 did not state.

Adequacy of garbage and disposal facilities:

Tight covered containers	458	Clean containers	431
Washable containers	495	Garbage grinder used	61
Sufficient number of containers	453	Not stated	28
Non-absorbent containers	340		

Problems in the cleaning and maintenance of kitchen, dining area and storage area:

	Kitchen	Dining Area	Storage Area
Hard to keep floors clean	71	74	23
Hard to keep floors in good repair	27	22	11
Hard to keep walls and ceilings clean	56	53	18
Hard to keep walls and ceilings in good repair	26	26	12
Kitchen walls and ceilings are not washable	47	41	27
Not stated — none	487	490	559

Special lavatory and toilet facilities for luncheon workers were reported by 397 schools. 202 reported none and 12 gave no answer. 422 stated these facilities are convenient to the lunchroom; in 541 there is hot and cold running water; soap is provided in 557 and paper towels are provided in 551.

Hand washing signs posted in washing areas		Employees required to wear clean outer garments		Separate slop sinks provided for cleaning mops, etc.	
Yes	220		598		490
No	350		5		97
Not stated	41		8		24

Separate storage facilities, outside food preparation and storage area are provided for cleaning supplies and equipment by 474 schools. 119 reported none, 18 gave no answer.

Accidents during the past school year due to:

Knives	70	Grinders, slicers, other mechanical equipment	50	Miscellaneous	51
Hot water	34	Broken glass or china	23	Not stated—none	413
Slipping-falling	79				

Number of accidents during year 1953	Involving Students	Involving Employees
1	26	90
2	4	37
3	3	13
4 and over	6	26
None	437	333
Indefinite	8	22
Not stated	127	90

* * * * *

METROPOLITAN HEALTH LITERATURE

The catalog of Health Literature published by the Metropolitan Life Insurance Co., lists pamphlets under the headings of Family Health, Nutrition, Safety, Information on Specific Diseases, Special School Health Publications, as well as Bulletins for Administrators and Teachers, plus Descriptive Bulletins and Catalogs and The Monthly Statistical Bulletin. Additional material is also available on Occupational Health and Safety.

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OUTCOMES OF A HEARING AND VISION CONSERVATION PROGRAM DEMONSTRATION IN A METROPOLITAN SCHOOL SYSTEM: PART II — DISCUSSION AND IMPLICATIONS OF THE DEMONSTRATION RESULTS

MARTHA CRUMPTON HARDY, Ph.D.
Elizabeth McCormick Memorial Fund

The immediate purpose of hearing and vision tests in school health programs is to identify children who are likely to need professional attention for ears and eyes. Recent research on screening tests for visual difficulties[1] has emphasized that current methods provide at best no more than a rough screening procedure with a relatively large proportion of incorrect referrals for eye care. While the available data from pure tone audiometric tests and the Massachusetts Vision Test as administered in the Chicago demonstration did not permit an estimate as to the general efficiency of these tests to detect hearing and visual impairments among the pupil-population, the results from examinations of those failing to meet test standards indicate a reasonably high percentage of correct referrals by those methods. At least four of every five who failed the tests and were subsequently examined were found to need professional attention for ear disorders or eye conditions.[2]

With respect to hearing tests, the fact that 89 per cent of the eleven and twelve-year-olds and 94 per cent of those over 12 years of age who were referred by audiometric tests were diagnosed in the otological screening clinic as having impaired hearing not only emphasizes the high degree of accuracy of the test results at these age levels but suggests that the merit of referring older pupils directly for medical care, on the basis of findings from the hearing screening test, might well be considered. Over-referrals from the tests would be expected to be relatively few and school otologists' time could thereby be released for more work with the younger pupils and their parents.

There was no indication in the Chicago study that hearing loss tended to be associated with poor socio-economic conditions. Where variations were observed the frequency of impaired hearing was greater among pupils from good residential areas where family incomes were above average.

All pupils failing to meet the standards of the vision tests were referred for eye care but only a relatively small proportion

were known to have been taken to a doctor. As a check on interpretation of the degree of correspondence between test failure and the doctor's findings, records were analyzed from schools where examination reports were available for the large majority of cases referred. Correlation results suggest that the agreement between examination findings and test failures was not unduly influenced by selective factors. In terms of reports from ophthalmologists and optometrists to whom the pupils were taken, at least 80% referred to them for eye care were found to have some type of eye problem — 82.5 per cent of cases from the total 59 schools and 80.2 per cent of those from ten selected schools in favored neighborhoods where most pupils failing the test were known to have received professional attention for eyes.

These results regarding the efficiency of the Massachusetts Vision Test are in agreement with those reported from research in progress in the Reading Clinic of the University of Chicago in showing close association between findings of this test and those of professional refractionists.[3] They differ from the St. Louis investigation[1] in that much closer correspondence with examination findings is evidenced in the Chicago cases. The St. Louis study found incorrect referrals ranged from two-thirds of the number of correct referrals to an equal proportion of correct and incorrect at the two grade levels tested. In the present study the figures indicate more than four times as many correct as incorrect referrals.

While the correlation results offer convincing evidence that school administrators may be reasonably confident pupils who fail to meet minimum requirements of the screening tests as used in the Chicago program, have hearing and/or visual difficulties, it is equally clear *that not all who fail to pass the tests require professional attention.* Of pupils failing the vision test, 10 per cent of those examined did not require treatment. In the present appraisal treatment was required if the reports showed: glasses were ordered; orthoptics recommended, including the wearing of an occluder; medical care or surgery advised, including referrals from an optometrist to a physician; continued observation was recommended; or other forms of treatment. According to the records at least *one* of every *ten* pupils at each age level who were seen by an eye specialist did not require eye care, although some type of eye difficulty was noted. These findings thus indicate that 28 per cent of the pupils referred for eye care who were known to

have been taken to an ophthalmologist or an optometrist were found *not* to need eye care—18 per cent incorrectly referred and ten per cent whose vision difficulty did not warrant treatment.

Until the concept of preventive and early remedial care is more widely accepted by parents, such a high percentage of cases referred for care and found not to need it is likely to deter future cooperation and militate against confidence in the school health services program. In cases where the parent had been reluctant to accept the evidence of suspected impairment, as a number of the parents indicated when interviewed, the situation is further complicated. The responsibility for adequate interpretation would seem to rest as heavily on the doctor to whom the child is taken as on the school, and more particularly when no treatment was necessary.

The goal toward which all steps of the hearing and vision conservation program were directed was correction and treatment of ear and eye problems detected by screening procedures with the school advised as to the child's difficulty and any modifications in the school program which seemed indicated to meet individual needs. Despite comprehensive planning with professional organizations in the community and preliminary efforts to alert the participating families to the probable need for professional care, outcomes in terms of the extent to which this goal was realized were on the whole not satisfactory. Failure to follow-up on recommendations for care made by schools or doctors is unfortunately of common occurrence, whether the problem be concerned with a specific physical condition or an involved emotional situation. Motivation for medical care, especially in the case of so-called well children, is a highly complex process and as yet relatively few of its components have been identified.

Since the vast majority of eye difficulties in childhood are said to be completely correctible and much can be done to reduce or reverse certain types of hearing loss, it is exceedingly important for the welfare of children suspected of having impaired hearing or vision that proper care be secured as soon as possible. Explorations into relationships between care obtained during the period covered by this study and various social and economic aspects of the child's background and of the nature of his impairment have, on the whole, thrown little light on conditions contributing to effective motivation for remedial care for the school-age child. They have, however, served to point up certain types of deterring influences to follow-through on recommendations. In the main

these appear to stem from a lack of understanding of what impaired hearing and vision mean and of the importance to the child's welfare of early discovery of the impairment and care as indicated. A number of parents when interviewed stated frankly that the child seemed to hear and see all right and they saw no reason for the expense of a visit to the doctor. Others failed to mention the hearing or eye difficulty when the child was taken to his doctor for a complaint unrelated to the referral by the school, or for a regular health check-up.

Some parents considered impaired hearing as something to be accepted and endured with little appreciation of the possibility of remedial or rehabilitative steps to offset the handicap. In families where at least two children had a hearing impairment, comments at the time of interview revealed a feeling of hopelessness as hearing defects appeared to "run in the family," but there had been little or no effort on their part to get remedial attention or to follow through on prescribed treatment.

Failure to take the child to a specialist as advised or even to mention referral for examination when he was seen by his pediatrician, may reflect a reluctance on the part of the parent to accept the idea of an ear or eye defect, and perhaps an indication of what the parent expects from the pediatrician when the child is taken for a check-up.

It is recognized that *the primary responsibility for seeing that the child receives needed professional attention is vested in the parents.* School health services should be prepared to make every possible effort to see that opportunity for the necessary remedial care is promptly provided, but in instances where parents for whatever reason fail to discharge their responsibility community services work against great difficulties.

SUMMARY

An appraisal of the outcomes of a carefully planned hearing and vision conservation demonstration in 128 elementary schools in Chicago as viewed more than a year and a half after the parents were alerted to the child's need for professional attention has shown that:

1. More than 80 per cent of pupils failing to meet the minimum requirements of the pure-tone audiometric tests and/or the Massachusetts Vision Test were upon proper examination found to have a hearing or vision problem.
2. The percentage of correct referrals by screening tests was high at all ages tested. With respect to hearing, 79 per cent of the youngest were correctly referred and 94 per cent of the oldest; with respect to

vision, 82 per cent of the youngest and 83 per cent of the oldest age group.

3. In the large majority of cases the hearing or vision difficulty had not been suspected by the parents until advised of the test results, regardless of the severity of impairment subsequently found on examination.
4. Although the full amount of follow-up could not be estimated with exactness, the available school records supplemented by personal interviews indicate that for perhaps half of those referred for care nothing had been done by the parents about the suspected hearing and vision difficulties.
5. Relationship between care obtained and socio-economic aspects of the child's background or his age throw little light on conditions contributing to effective motivation for remedial care of the school-age child referred because of suspected hearing or visual difficulties.

REFERENCES

1. Crane, Marian M., M.D., Scorbee, Richard G., M.D., et al. Study of Procedures Used for Screening Elementary School Children for Visual Defects. Amer. Jr. Publ. Health, vol. 42. No. 11, p. 1430, Nov., 1952.
2. Hardy, Martha Crumpton, Ph.D., Outcomes of a Hearing and Vision Conservation Program Demonstration in a Metropolitan School System. Journal of School Health, Vol .... No .... p .... 1955.
3. Robinson, Helen M., Ph.D., An Analysis of Four Visual Screening Tests at Grades Four to Seven. Amer. Jr. of Optom. and Arch. Amer. Acad. of Optom., Monograph No. 145 (30, 4, 177-87) 1953.

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NEWS ITEM

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

The National Foundation for Infantile Paralysis has accepted a recommendation by the Association of State and Territorial Health Officers to offer polio vaccine to youngsters in the second grade of school next spring, instead of to pregnant women, if the vaccine is proven effective, according to Basil O'Connor, National Foundation president.

The result of the revision in the plan means that the vaccine which the National Foundation proposes to make available will be offered to the following groups:

1. All children (1,390,000), in 217 areas who participated in the 1954 vaccine field trials but who served as "controls" and did not receive vaccine.
2. All children (7,895,000) enrolled in the first and second grades of public, private and parochial schools in every community as of next spring.

The entire plan is contingent on the vaccine being proven effective in the evaluation study now being conducted by Dr. Thomas Francis, Jr., chairman of the University of Michigan Department of Epidemiology, and on subsequent government licensing of the vaccine. A report from Dr. Francis is expected in the spring.

TEACHER PREPARATION IN HEALTH EDUCATION IN PENNSYLVANIA

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Presented to the Third Annual Health Conference

The School Health Education Program Today—One of the most noticeable changes in health education during recent years has been the broadened scope of the modern health education program. Recognized today as being as complex and divergent as the lives of human beings, health education involves the attitudes and opinions, the beliefs and practices of all people of all ages.

Health education in our schools today means more than a little first aid taught in the classroom; more than just a smattering of information given by a teacher, often repeated year after year. Health education no longer means memorizing rigid rules of health for all people—"drink six glasses of water daily, take a cold shower every morning, take a bath every day." I hope we understand at this point also that health education is not learning foul shooting skills in basketball, or drilling on football signals during the fall, or for that matter, learning any other athletic or sport skill. These rightly belong in physical education and athletics, and as long as the distinction is clear, no elaboration is necessary at this time.

Health education, furthermore is not a study of anatomy, the names of bones of the body recited back to the teacher, the "systems" of the body studied by pupils. It may include some of these things, but surely does not end with a little factual knowledge of the human body. In fact, health education, correctly conceived, *begins* at this point. With some information and knowledge, the individual is ready to *apply* what he knows; he is able to understand problems, develop judgment, and make decisions that affect his health. Health education then, is not mere information; it is the development of attitudes, understandings, values and skills which lead the individual into intelligent behavior that affects or protects his health or the health of others.

With this point of view toward health education, I should like to discuss briefly three major ways by which teachers are prepared in health education.

What is being done in Pennsylvania—First, there are in Pennsylvania a number of institutions of higher education engaged in

preparing teachers for health education. These include a number of State Teachers Colleges, a few universities and other colleges preparing teachers in various ways, with some kind of background for understanding health problems. It may be interesting to note that a considerable part of this preparation may be quite indirect and perhaps even unintentional on the part of the colleges and universities.

One way of preparing teachers in health education is to provide good experience for them while they are attending the college or university. This means satisfactory living conditions, good meals, adequate study conditions, pleasant associations with people, a variety of recreational opportunities. It means also good experiences with the health service personnel — doctors and nurses, care when ill, guidance when he needs help with his problems, adequate medical and dental examinations, and effective safety provisions. The importance of these provisions is based on the assumption that the prospective teacher learns not only from what he is told in the classroom, but also from what he does, how he lives, and how he feels while he is on the campus. Pennsylvania is providing these opportunities.

Another way of preparing teachers in health education in institutions of higher education is through specific course experiences as a part of the curriculum. For elementary teachers at least one course dealing with the school health program, together with an understanding of child growth and development, educational psychology, methods of teaching, nutrition, and nature study, provide some background for the student in recognizing and understanding health problems and in organizing materials for teaching. Additional courses usually are taken, such as biology and other science, social studies, phychology, family relationships, and the effective use of audio-visual aids.

The preparation of the health teacher for the secondary schools is closely related to the physical education curriculum, at least in Pennsylvania and in many other states as well. There is no separate certificate issued by the Department of Public Instruction in Pennsylvania, for health education. The certificate reads: "Health and Physical Education." Courses taken usually include basic sciences such as, Chemistry, Biology, and Bacteriology; Anatomy and Physiology; general cultural subjects such as History, English, Sociology, Economics and Government; Education courses; professional courses in health education, such as principles of hygiene, methods of teaching, safety education, first aid,

and the school health program. The course experience culminates in a period of practice, or student teaching, which affords many experiences in actual school situations. All these courses are combined with the physical education curriculum to provide the Health and Physical Education Certificate. Not all colleges include all these courses.

Only one institution of higher education in Pennsylvania has a four year curriculum devoted to the preparation of health education major students; that is, State University, where students may prepare for school health education, although they usually do not receive a certificate for teaching. They may also prepare for work with voluntary health agencies, or they may go into physical therapy schools.

B—*The In-Service Program for Health Teachers.* A second important way of preparing teachers is through the in-service programs, which means aiding the professional growth of teachers who are actually teaching. One such method of in-service is through the Community-School Health Education Workshops. These were started at The Pennsylvania State University in 1945; were later expanded to include five other centers. In 1954, Workshops were held at the University of Pittsburgh, Temple University, The Pennsylvania State University, and West Chester and Slippery Rock State Teachers Colleges.

The Workshop is a concentrated process in Health Education, which draws together a selected, experienced group of persons. These may be nurses, health educators, school teachers, school principals, dental hygienists, and other interested persons, who attempt to define problems, discuss procedures, and discover possible resources which may be used in health education. Specialists come in to the workshop from various related areas of medicine, dentistry, nursing, psychology, public health, school health, nutrition, guidance, and child development.

In the light of widespread acceptance throughout the country, the Workshop procedure is considered to be a valuable and effective method of professional preparation for active teachers.

Another method of in-service preparation is through meetings of various groups closely connected with the on-going school program. The Pennsylvania Education Association usually relates a part of regional or district meetings to problems in health education. County institutes are often devoted to the health program, as are local school or area teachers' meetings. Even daily experiences with boys and girls add to a teacher's understanding of

health problems, and so are actually a part of in-service training.

The Pennsylvania State Department of Health is a valuable source of information and aid for all teachers, particularly the Department of Public Health Education which has films, educational materials, and services for school personnel. The Department of Welfare has similar services and materials relating to mental health, for both schools and communities.

C—*Health Organizations and Teacher Preparation.* The third major factor in the preparation of health teachers is through the cooperation of organizations or agencies, while perhaps in some instances highly specialized, nevertheless offering much help to the teacher or prospective teacher.

The Pennsylvania Department of Health is a valuable source of information and aid for all teachers, particularly the Department of Public Health Education which has films, educational materials, and services for school personnel. The Department of Welfare has similar services and materials relating to mental health, for both schools and communities.

The Department of Public Instruction has a definite educational influence in the preparation of teachers. Not only are minimum standards maintained by certificates for teachers, but also leadership and help can be obtained in many special areas, and certainly health education is no exception.

The voluntary health agencies, such as the tuberculosis and health, cancer, heart, polio, and crippled children societies, and the child health councils, are willing and anxious to provide ideas to teachers for inclusion in the school health program. These voluntary agencies, it should be added, have provided scholarships for our health education workshops mentioned before.

Several national organizations are instrumental in giving impetus to local programs in health education, and thus provide further preparation for teachers. Some of these are the American Public Health Association, the American School Health Association, The American Social Hygiene Association, and the American Association for Health, Physical Education and Recreation. There are also governmental agencies like the office of Education and the Children's Bureau. All of these and many others exert an influence on teachers and other health personnel in local communities.

In recent years the medical profession has made a continued effort to further the objectives of health education. In my com-

munity and perhaps in yours, many doctors have given freely of their time in an effort to help people understand health problems. One physician came in to my class to demonstrate a school medical examination to prospective health teachers. Others have joined the Workshop staff for an entire morning. Many physicians serve with voluntary health agencies, work with P.T.A. groups, advisory health councils, and with our colleges and universities, in both the health service and the instructional program.

D—*Competencies Needed by Teachers.* Those of us engaged in teacher preparation for health education believe that the best way to evaluate the preparation is by the degree of competency achieved. This is better, we believe, than to add up courses or credits, because courses vary with different institutions. Also one student may get a great deal from a course, while another student may get very little from the same courses.

Here are a few of the specific areas in which a teacher should be competent. These are taken from several studies of teacher preparation, notably the School Health Section of the American Public Health Association, the Jackson's Mill Conference on Undergraduate Professional Preparation in Health Education, and two national conferences held under the direction of the Office of Education. All teachers in every subject matter area have certain definite contributions to make to health education, and should have these competencies:

1. An understanding of the basic concepts in child growth and development.
2. An understanding of the importance of health in the education of the child.
3. An understanding of the effect of the physical and emotional environment on health.
4. Skill in organizing appropriate learning experiences for the child.
5. Skill in motivating healthful behavior through effective guidance and counseling.
6. Skill in detecting deviations from normal appearance and behavior.
7. Skill in the use of appropriate screening and referral procedures.
8. An understanding of the complex nature of health problems, and the need for many services in order for health education to be really effective.

In conclusion, an important trend in teacher preparation should be noted. A very definite attempt is being made to regard an understanding of public health problems as an integral part of school health education. Health problems of children are not limited to the classroom or the school building. They have many origins outside the school. Teachers must recognize the wide

variety of causative factors involved, the many persons needed for complete cooperation in health education, and the valuable assistance that can be obtained from the organized public health agencies in any community.

Preparing teachers in Health Education is a complex task, and it requires the help of many persons.

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REVIEWS

"Illustrated Handbook of Child Care, From Birth to Six Years." *Wava McCullough* — assisted by *Marcella Gawrouski, R.N.*, McGraw-Hill Book Company, New York, 1954. p. 231, $4.00.

A very interesting, attractive, and instructive text, loaded with short statements and profuse illustrations concerning the hygiene and health and the characteristics, development, care and guidance of young children from birth to six years.

The content is divided into such areas as Furnishings, Feeding, Bathing, Training, The Play Area, The Baby Sitter, Special Problems, The Sick Baby and Child, and Prevention and First Aid. A most valuable book for nurse, teacher, and parent.—*Charles H. Keene.*

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"Roberts' Nutrition Work With Children." *Ethel Austin Martin*, University of Chicago Press, Chicago, 1954, p. 527, $7.50.

Since the issuance in 1935 of the revision of Dr. Lydia Roberts' outstanding work on child nutrition, enormous advances have been made in the field of nutrition of children.

This new text is almost wholly a rewritten one. After early chapters devoted to discussions of growth and means of judging the condition of nutrition, there is discussion of basic methods of improving nutrition, and of state and local nutrition services. There follow a very important five chapters — 168 pages — devoted to various presentations of the nutrition program, to nutrition teaching, and to the School Lunch.

This text is a mine of help and information to those interested in nutrition of school children, particularly those in the school health services.—*Charles H. Keene.*

INSIGHT INTO TEEN-AGE PROBLEMS

CHARLES and ALYCE CARTER and FRANK HAAR
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Some insight into the types of problems that "bother" teen-agers was given by the results of a study made recently on the University of Oregon campus in health education classes. The data for the study were collected by the use of the following simple questionnaire: (1) list three problems or situations that disturbed you most during your adolescence; (2) tell how you would solve or have solved the most important of these problems.

The following table shows that the problem which bothered most girls was one which centered around physical appearance or health.

TABLE I

Types of Problems Given by the 234 Freshmen Girls Surveyed at the University of Oregon:

Rank	Type of Problem	Number	Per Cent
1	Physical Problems	109	43.2
2	Social Adjustment Problems	85	36
3	Family Problems	76	32
4	Boy-Girl Relationships	53	22.5
5	Financial Problems	32	13
6	School Adjustment Problems	30	12
7	Psychological Problems	29	11.5
8	Moral Problems	9	4
9	Vocational Problems	8	3
10	Clothes Problems	7	2.5
11	No Problems	3	1.5

Nearly one-half of the girls or 43.2 per cent stated that they were, or had been, emotionally disturbed by over-weight, extreme height, unattractive facial features, or other teen-age "afflictions," such as acne.

One of the girls, representative of the many in this group, stated her problem this way: "The only disturbing problem that I had during adolescence was the problem of being extremely overweight. This always limited my social activities a great deal." She had solved her problem by forcing herself to diet. As a result, she said "I feel better, my self-confidence has improved and I enjoy getting into social affairs now."

Social adjustment problems, i. e., how to make friends and get along with teachers and other people, were rated most important by 36 per cent of the girls who answered the questionnaire. They stated their feelings this way: "I was afraid of my teachers. I had difficulty in school because of my teachers," or "I was always too shy when around people I didn't know very well. I felt inferior to others." This is the way one of the girls said she had

solved her difficulties: "I began talking with teachers after school and then I began to like them. I wasn't afraid of them any more." One other girl, like most of those who stated they were shy, had found no solution.

Family problems ranked third on the frequency table for the girls. Many of the girls who were bothered by family situations seemed quite concerned. One girl wrote, "It was very embarrassing to bring my friends home and find mother on the davenport with a strange man." This same girl stated that both of her parents went out with other persons; this bothered her a great deal. She had found no solution to her problem.

Most of the problems listed were not as severe as the one just cited, but parent-child conflicts such as "Who shall use the family car?" were commonly listed as teen-age problems. For example, one girl stated, "The most important problem that I had in adolescence was the problem of my parents. It seems as if everything I wanted to do wasn't good and everything I did was wrong. It still hasn't been solved because now when I want to do something, I just do it, whether they object or not. This problem could have been solved if my parents hadn't just used dictatorial power, saying 'Yes' or 'No', but had tried to see my side of it also."

The boys' responses give a somewhat different picture from the one given by the girls, as can be seen by study of the following table; the problems listed are the same, but the importance attached to each is different.

TABLE II

Types of Problems Given by the 128 Freshman Boys Surveyed at the University of Oregon:

Rank	Type of Problem	Number	Per Cent
1	Boy-Girl Relationships	48	38
2	Social Adjustment	46	36.5
3	School Adjustment	32	25.5
4	Financial Problems	29	23
5	Physical Problems	27	21
6	Moral Problems	18	14
7	Family Problems	16	12.5
8	Psychological Problems	15	11.5
9	Athletic Problems	9	7
10	Going into Service	5	4
11	Vocational Problems	4	3
12	No Problems	3	2.5

In contrast to the girls, family problems ranked fairly low on the frequency list of boys' problems. Only 16 boys out of the 128 surveyed, or 12.5 per cent, stated this was their primary difficulty. It ranked seventh on the list and was preceded by boy-girl rela-

tionships, social adjustment, school adjustment, financial problems, physical problems and moral problems.

Boy-girl relationships was the number one problem for boys. 38 per cent of them ranked this teen-age difficulty first in contrast to the girls, who ranked it fourth. Out of the 128 boys, 48 students, or 38 per cent stated boy-girl relationship was, or had been, their most pressing problem. Physical problems were not nearly as important to the boys as to the girls. While the girls set physical appearance in first place, the boys dropped it to fifth.

One student stated that "the mysteries of sex" were most perplexing to him. He found the answer to his questions about sex by reading. "Most, not all, the mysteries of sex have been explained to me by reading books at home. Other sources of information were gained in magazines and newspapers," he said.

The boys saw social adjustment as second in importance and many were able to state their reasons for the difficulties. One boy, for example, stated he lived on an isolated ranch for much of his early life and did not have an opportunity to get acquainted with people. Another boy said his father had an occupation that required moving, and the boy did not learn to adjust himself to the new social group before it was time to move again.

Moving from place to place was also one of the greatest contributing factors for the third-ranking problem on the boys' list, school adjustment. One out of every four boys who answered the questions wrote that school adjustment was most difficult for them. Difficulty in getting along with teachers did not appear to bother boys as much as did getting along with their classmates and getting the required work done.

Problems centering around money were very important to both boys and girls. In the girls' list finances ranked fifth, and in the boys' list it ranked fourth.

This study attempted to show the nature, not the severity of the students' problems. No suggestions or leads were given; the students were left entirely on their own as to what they might list as problems. The statements of the students were taken as presented and placed in categories to determine whether there were any common problems. A survey of this type could be used in school health program planning, health education, and health counseling, for example:

1. School health program planning by taking into consideration the emotional, social, and psychological needs of the students as well as

their intellectual and physical needs. In other words, planning the health program around the problems presented by the students themselves.

2. Individual classroom teachers may use the various problems as an approach to daily lesson plans, and in planning courses of study.
3. As a basis for individual health counseling by the teacher or by the counseling services on the campus.
4. As a basis for discussion at Parent-Teacher meetings, and child study groups in the community.
5. As a basis of referral for physical problems to the student health services, which should include psychiatric service.
6. As a student evaluation of his own problems, helping him to become more objective about his problems and learn how to solve them.
7. As a basis for referral of athletic problems to the physical education departments for consideration.

SUMMARY

In brief, here, the freshmen girls polled in this study ranked their seven most critical problems in the following order: physical, social adjustment, family, boy-girl relationships, financial, school adjustment, and psychological problems.

The types of problems given by the freshmen boys most frequently during their adolescence were as follows: boy-girl relationships, social, school adjustment, financial, physical, moral, family, and psychological problems.

Physical problems, which ranked first with girls, ranked only fifth with boys. In contrast to the boys who ranked boy-girl relationships first, the girls ranked it fourth. Problems centering around money were almost equally as important to both girls as to boys. Social adjustment appeared to be equally difficult for both. School adjustment proved to be more difficult for boys than for girls. According to this survey, moral problems were more disturbing to the boys than to the girls during their adolescence. Family problems were more distressing to the girls than to the boys.

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REPRINTS AVAILABLE

Reprints of the address by Dana L. Farnsworth, M.D., on *Mental Hygiene—Keystone of Education*, delivered at the Annual Meeting of the ASHA in Buffalo in October, 1954, may be obtained free of charge by writing to the School Health Bureau, Health and Welfare Division, Metropolitan Life Insurance Company, 1 Madison Avenue, New York 10, New York.

SIGHT SAVING CLASSES — ASSET OR LIABILITY*

(*Concluded from January* 1955)

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Since visual acuity readings are essentially subjective in character and our final interpretations are based on the responses of the child, it is well to bear in mind that inadequate responses by the child do not necessarily indicate physical non-stimulation or inadequate stimulation of the receptor organs of vision. The receptor organs may well have been stimulated by the various sized images on the Snellen Chart, yet because of the many complex psychological impedimenta present in the child, negative or misleading responses may have been obtained. The only positive deduction that we can make when a child fails to give us a normal reading is that he surely does not have less vision but he could have more.

The recognition of test types on the Snellen Chart is a perceptual process combined with a strong personal factor. When we ask a child to read the vision chart, his response to the test involves a number of functions all of which play an important part in the final evaluation of the test; namely, the child's power of attention which in itself is complex, his willingness to cooperate, his power of discrimination, his reading ability and his desire to make a conscious effort to read. The power of visual discrimination is not only a question of retinal images, but it is also a matter of the competency of the nervous elements from the eye to the visual area in the brain with regard to the ability (after proper stimulation) to transmit to the brain for interpretation, the images formed thereon. Therefore, each and every one of the previously enumerated factors should be minutely analyzed before committing onself to a final decision. The *nature, extent, location* and *characteritistics* of a pathological process should be evaluated in terms of compatible visual loss, not merely on the responses of the child.

3. *A mistaken belief that sight saving classes can and do retard, arrest or ameliorate the patholigic processes.* Noth-

*American School Health Association, October 14, 1954, Buffalo, New York.

ing is further from the truth. The fact remains that the greatest majority if not all of the clinical entities noted in children attending sight saving classes represent either degenerative, hereditarily determined or congenital abnormalties, or the results of prenatal or postnatal influences some of which are not subject to environmental control. The salutory effect obtained through attendance in sight saving classes should not be based on the degree of visual loss or on a clinical label. Instead, one should determine how much visual function there remains and what the child can do with it in terms of the curricular demands of regular education. The belief that the rigors of regular educational facilities will exaggerate a pre-existing ocular defect is fallacious.

4. *Only two states, New York and Ohio, consider the inability of a child to read small print as a requirement for admission to sight saving classes.* Both of them set as their guide the inability of a child to read J_2 with correction at the reading distance. Why should this be? J_2 represents the recognition of 5 point type. Yet, throughout the child's entire elementary and secondary school life rarely, if ever, is he called upon to read less than 12 point type which is equivalent to J_{10}. It is our belief that a partially seeing child is unquestionably visually handicapped if by reason of his defect, after adequate correction he is unable to read with both eyes simultaneously at least 10 point type (J_8).
5. *Apparently there is an unanimity of opinion in a majority of our communities that a child with not more than* 20/70 *corrected vision in the better eye should be assigned to sight saving classes.* Other states place it as high as 20/50 and 20/40. We have never been able to understand or obtain an authoritative explanation of the rationale for this recommendation. Granted that the visual acuity readings given by a child are dependable and in agreement with the existing eye changes, for apparent reasons this degree of defect should NOT categorize the child as visually handicapped. Why not? Because a 20/70 vision represents the inability to recognize images, letters and symbols of not less than 1½ inches in height from a distance of 20 feet.

The writer has spent many an hour in various elementary and secondary school classrooms observing teachers chalk[1] writing or printing on blackboards and never at any time was he able to note a legibly written word or sentence whose component letters were less than 1½ inches in height. Since such is a proven fact, why should a child who is able to recognize a 1½ inch letter or word from a distance of 20 feet be declared visually handicapped for classroom work unless he was seated at a distance of 40 or 50 feet from the blackboard? Modern classrooms are not of that size, and if in some communities, they are still present, advantageous seating of the child would be the simple solution of the problem.

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A YEAR'S END INVENTORY OF A HEALTH SERVICE PROGRAM IN A LARGE URBAN COMMUNITY*

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Chicago is a composite of 75 communities distinct in name only, none of them homogeneous, including 406 public schools with an enrollment of 403,934 pupils. The population of the city is approximately 3,800,000, an increase of about 6.6 per cent since 1940. Schools in transition or mobile areas may have tremendous turnover.

An evaluation of the health services in the Chicago Public Schools would be presumptuous if it did not mention safety, environmental sanitation, school lunch, guidance services, recreation, and health education as contributory services. However, the Chicago Public Schools have long had separate bureaus specifically devoted to each of these areas.

The Bureau of Health Services in our public schools is now under medical direction with a teacher-nurse staff covering one-eighth of the school enrollment, and a school board ready to increase health personnel annually until all schools are covered.

At the outset, coordinated community action through a committee dedicated to secure an adequate school health service program for Chicago's children was formulated by the Chicago Medical Society and accepted by the Board of Education. In a city with as widely varying conditions as occur in Chicago, school health problems must largely be solved at the level of the indi-

*Presented before the School Health Services Section of the A.S.H.A., Monday, October 11, 1954.

vidual school in providing supervision of the school child by educators and health personnel in order to detect children with health problems, and in order to given guidance wherever indicated. Evaluation of each phase of the program *annually* or *as often as indicated* has proven to be one of the most valuable tools in the planning and expansion of the program.

The teacher-nurse in the school is particularly qualified by preparation and experience to collect and assemble data and aid in its interpretation and evaluation. Constant check of program practice against recommended standards and a continuing scrutiny of the health appraisal and counseling program are her responsibility.

From this brief introduction, it is obvious that evaluation of any part of the program at this time must be considered only as a current report on a developing service still far from attaining its ultimate scope.

Samples of methods of evaluation have been selected which demonstrate how the following have been used in studying the school health services:

1. Comparing actual practices with recommended standards through the development of the "Guide for the Teacher-Nurse."
2. Use of statistical data obtained by surveying the Health Appraisal Program and determining the current needs for expansion of community resources for the medically indigent pupil.
3. Surveying achievement of fundamental objectives, using minutes of health council meetings, pupil health service records, and pupil health service reports.
4. Study of medical examination record forms, determination of immunization status of pupils.

With the assignment of the first teacher-nurses to the schools, the need for a "guide" was expressed both by the schools and the nurses. At the monthly staff education meetings, the nurses discussed the standards and functions of the teacher-nurse as they related to the Chicago schools, how each nurse might best function as a member of the school health team, her status as a member of the faculty, how the requirements for health appraisal might be carried out, the need for more specific directions for emergenccy illness and accident, and the function of the teacher-nurse in the screening program.

At the same time, the principals of these schools met with the administrative staff of the Bureau of Health Services to define basic functions of the public health nurses as home visiting, health counseling, furnishing a health room, keeping health records and defining the probable functions of a voluntary medical counselor.

At the request of the principals, three committees were organized each representing principals, teachers and teacher-nurses to discuss and recommend standards that could be adapted to the Chicago Public Schools with regard to management of emergency illness, communicable disease control, surveying health needs, evaluation and screening programs. With these recommendations, the group of teacher-nurses was organized to work on the "Guide." Purposes, objectives, programs, and a statement of the functions of the teacher-nurse were prepared by the committees. The editing by the supervisor completed the first guide.

After the first year, the teacher-nurses devoted one staff meeting to share with each other their experiences in all areas of the program as it pertained to accepted standards and the Chicago schools. The teacher-nurses used workshop techniques in presenting the accomplishments, the unsolved problems, and recommendations for changes. The medical director and supervisors carried these problems and recommendations to the Medical Society and school administration for construction and approval, and consequently a first revision of the "guide" was accomplished.

Results of efforts by the Board of Education to meet the State requirements for health appraisal of the entering school child. The elementary school has the responsibility of distributing the medical and dental examination records to the parents at the time of registration, and parents are responsible for completing the health history portion of the medical record and for taking the child to the family physician and dentist. Directions prepared by the Bureau of Health Services for carrying out any procedure are included at intervals in the weekly school bulletin. A questionnaire has been prepared each year to secure information regarding the current number of entering school children, the number receiving medical and dental forms, the number receiving medical and dental examinations from family physicians and dentists, the number receiving these examinations from clinics, the reasons for parental non-compliance.

The Bureau of Health Services tabulated this information including the number of schools reporting, as well as the *results* of the health appraisal in each school. Evaluation indicated the need for further indoctrination on health appraisal by the school personnel and continued interpretation in this matter to community groups. The Child Health Committee then published in the Chicago Medical Society Bulletin a report on the school health program, urging physicians to cooperate in every way possible.

Cooperation was also provided through the Parent-Teacher Association whose regional health chairman worked with the Bureau of Health Services in developing a guide for local PTA chairmen covering the subjects of health examination, communicable disease control, and local community agency cooperation. A workshop for local health chairmen was held.

Need for Resources for the Medically Indigent. The Bureau of Health Services visited clinics and plans were made with many of them for provision of a limited number of referrals for medical and dental examination for medically indigent pupils from the schools to which teacher-nurses were assigned.

The procedure for referral was outlined with each clinic. The teacher-nurse was responsible for the referral and for the follow-up of each pupil. A study of the results of the first year's experience included for each school: total enrollment in kindergarten and first grade, number of pupils eligible for clinic referral, number of pupils seen in clinics for medical examination and/or dental examination, number of pupils seen by private physician or dentist in preference to clinic referral, number of parents refusing any referral, number failing to keep appointment, number of pupils with medical and/or dental defects, number of pupils followed up by clinic, and number of pupils still needing referral to clinic.

The clinics and number of pupils referred to each were listed. A narrative description of the need (or problems), of clinic referral for each school was written. The preliminary study of this report provided the first index of the real need for community resources for health appraisal of medically indigent school children. On the basis of these findings, the clinics have continued to cooperate and to some extent expand their services.

Since school health problems in our community must largely be solved at the level of the individual school, the achievements of some of the school health councils will show how the health program has been coordinated within the school and community. The principal of the school, with a teacher-nurse, determines the size and personnel make-up of the council; he is advised of the resources of the medical and dental society for providing voluntary counselors.

Expansion of the health appraisal program has been carried on for pupils entering the ninth grade, for those referred by special education, and for those pupils selected by their teachers as having signs and symptoms of acute or long-term illness.

Forms and procedures have been developed for exclusion of acutely ill pupils, on communicable disease control, on the selection of pupils requiring restricted physical activity, on growth programs, on studies of pupils' eating habits, and studies on emotional behavior. Both teachers and parents participating in the council activities have brought about requests for in-service education on health matters. This integration of health education with the educational program and a plan for coordinating the educational program with health services is slowly evolving in many of these schools. Some of the health problems studied by health councils have been presented to administration or to professional advisory committees for consideration or support.

In order to further scrutinize the progress of the teacher-nurse program, a monthly statistical tabulation of pupil health services is prepared by the teacher-nurse, and supplemented by a narrative for each of these schools each semester. New projects, accomplishments and problems can be outcomes of a study of the statistical data.

Through the joint efforts of the Bureau of Health Services and the Medical Society revisions of the health appraisal records were brought about and final recommendations were made for major revisions in the cumulative health record.

In cooperation with the Board of Health, further study included the revision of records and procedures for immunization. After a trial period, the adoption of new records by the Medical Society and the Board of Health will provide for an immunization program that will encourage parents to employ their family physicians and encourage the Board of Health to provide community centers for those needing and requesting aid, and thus provide for the protection of the immunization status of all elementary school children.

From the foregoing evaluation of health services in the Chicago Public Schools, it may be concluded that:

1. Evaluation of health services must be a continuous process, both system-wide, and at the individual school level.
2. Standards must be established for purposes of comparison with actual practice, although evaluation may bring about change.
3. The various techniques used were applied to evaluation of various programs as well as to the effectiveness of "follow-up" for the individual child.
4. The nurse in the school is an integral member of the health team often assuming leadership and initiative. She has an important function in the evaluation of health services, and is accepted as a member of the school faculty.